Appl. No. 09/287,214
Amd. Dated March 1, 2005
Response to Office Action of June 17, 2004

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (canceled).

Claim 2 (canceled).

Claim 3 (canceled).

Claim 4 (canceled).

Claim 5 (canceled).

Claim 6 (canceled).

Claim 7 (canceled).

Claim 8 (canceled).

Claim 9 (canceled).

Claim 10 (canceled).

Claim 11 (canceled).

Claim 12 (canceled).

Claim 13 (canceled).

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Claim 14 (previously presented): A method for operating a memory device including a plurality of storage cells:

dynamically partitioning said memory device into a plurality of priority lists;

directing new data to be stored in said memory device to storage cells belonging to a highest priority list of said plurality of priority lists;

reading data from said memory device only from a highest priority non-empty priority list; and

transferring said data read from said memory device from said highest priority non-empty priority list to a next lower priority list after reading without movement between storage cells; and

wherein after reading said data and transferring said data, said data is maintained on said next lower priority list within said memory device.

Claim 15 (previously presented): The method of claim 14 wherein dynamically partitioning comprises:

providing a write pointer and a plurality of read pointers each of said read pointers corresponding to one of a plurality of priority levels corresponding to said plurality of priority lists.

Claim 16 (original): The method of claim 15 wherein directing comprises:

writing data to a location in said memory device determined by said write pointer and thereafter incrementing said write pointer.

Claim 17 (original): The method of claim 15 wherein reading comprises:

reading data from a location in said memory device determined by one of said plurality of read pointers corresponding to said highest priority non-empty priority list.

Claim 18 (original): The method of claim 17 wherein dynamically partitioning further comprises:

providing for each of said priority lists a count register indicating an allocated number of storage cells.

Claim 19 (previously presented): The method of claim 18 wherein transferring comprises:

incrementing said read pointer corresponding to said highest priority non-empty priority list;

decrementing one of said count registers corresponding to said highest priority non-empty priority list; and

incrementing one of said count registers corresponding to a next highest priority priority list.

Claim 20 (previously presented): The method of claim 14 wherein said count register corresponding to said next highest priority priority list is incremented only after a delay.

Claim 21 (previously presented): Apparatus for operating a memory device including a plurality of storage cells:

means for dynamically partitioning said memory device into a plurality of priority lists;

means for directing new data to be stored in said memory device to storage cells belonging to a highest priority list of said plurality of priority lists;

means for reading data from said memory device only from a highest priority non-empty priority list; and

means for transferring said data read from said memory device from said highest priority non-empty priority list to a next lower priority list after reading without movement between storage cells; and

wherein after reading said data and transferring said data, said data is maintained on said next lower priority list within said memory device.

Claim 22 (previously presented): The apparatus of claim 21 wherein said means for dynamically partitioning comprises:

means for providing a write pointer and a plurality of read pointers each of said read pointers corresponding to one of a plurality of priority levels corresponding to said plurality of priority lists.

Claim 23 (previously presented): The apparatus of claim 22 wherein means for directing comprises:

means for writing data to a location in said memory device determined by said write pointer and thereafter incrementing said write pointer.

Claim 24 (previously presented): The apparatus of claim 22 wherein said means for reading comprises:

means for reading data from a location in said memory device determined by one of said plurality of read pointers corresponding to said highest priority non-empty priority list.

Claim 25 (previously presented): The apparatus of claim 24 wherein said means for dynamically partitioning further comprises:

means for providing for each of said priority lists a count register indicating an allocated number of storage cells.

Claim 26 (previously presented): The apparatus of claim 25 wherein said means for transferring comprises:

means for incrementing said read pointer corresponding to said highest priority non-empty priority list;

means for decrementing one of said count registers corresponding to said highest priority non-empty priority list; and

means for incrementing one of said count registers corresponding to a next highest priority priority list.

Claim 27 (previously presented): The apparatus of claim 26 wherein said count register corresponding to said next highest priority priority list is incremented only after a delay.

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Claim 28 (previously presented): The method of claim 14 wherein said data read from said memory device represents a retransmission task.

Claim 29 (previously presented): The apparatus of claim 21 wherein said data read from said memory device represents a retransmission task.

Claim 30 (previously presented): Apparatus for storing data, said apparatus comprising:

a memory device dynamically partitioned into a plurality of priority lists, wherein new data to be stored in said memory device is directed to storage cells belonging to a highest priority list of said plurality of priority lists; and

a memory control engine that reads data from said memory device only from a highest priority non-empty priority list, transfers said data read from said memory device from said highest priority non-empty priority list to a next lower priority list after reading without movement between storage cells; and

wherein after reading said data and transferring said data, said data is maintained on said next lower priority list.

Claim 31 (previously presented): The apparatus of claim 30 wherein said memory control engine comprises:

a write pointer and a plurality of read pointers each of said read pointers corresponding to one of a plurality of priority levels corresponding to said plurality of priority lists.

Claim 32 (previously presented): The apparatus of claim 30 wherein said memory control engine further comprises:

a count register for each of said priority lists indicating an allocated number of storage cells.

Claim 33 (previously presented): The apparatus of claim 32 wherein said count register corresponding to said next highest priority list is incremented only after a delay.